

REMARKS

Two of the three formal changes suggested by the Examiner are made in the claims. However, the third suggested change is not, because, the language of claim 1 having been carefully studied, it is believed to be clear and exact as it stands.

The Examiner inquired as to which drill buttons are being referred to by the phrase "plural drill buttons (16)". The complete context of this phrase is "each of said conical segments (18) having plural drill buttons (16) disposed at difference distances from the center axis of the drill bit". This means what it says: each conical segment has drill bits that are disposed at different distances from the center axis of the drill bit. This arrangement is clearly apparent from Figs. 2-5. See for example Fig. 4, in which the drill buttons 16a' and 16c' are at different distances from the center axis of the drill bit.

Reconsideration is respectfully requested, for the rejection of the claims as anticipated by or unpatentable over BRANDENBERG et al. It is to be noted that PHIPPS U.S. Patent 3,258,077, applied in the preceding Official Action, has been withdrawn as a reference and BRANDENBERG et al. U.S. Patent 6,799,648 is used in its stead.

But BRANDENBERG et al. is no more pertinent than PHIPPS. In fact, as to the arrangement of the drill buttons, BRANDENBERG and PHIPPS can be considered to be identical.

This is because BRANDENBERG, like PHIPPS, has only a single circular array of buttons 30 corresponding to the buttons 16 of the present invention. See Fig. 1 of PHIPPS, in which the buttons 26 are in a single circular array, all at the same distance from the axis of the device. Then see Figs. 3, 4 and 5 of BRANDENBERG et al., in which the buttons 30 on the conical segments of the drill bit are all the same distance from the axis of the device.

Therefore, the same arguments successfully applied against PHIPPS now apply to BRANDENBERG et al., as follows:

An arrangement such as in BRANDENBERG et al. (and as also in PHIPPS) would not have the centering action of the drill bit that is enjoyed by the present invention.

In the present invention, the drill buttons are arranged in a conical pattern as best seen in Fig. 3, certain of these drill buttons (at least one in each of at least three segments 18) being equidistant from the axis of rotation.

In addition, in each segment 18, there are other drill bits 16 arranged on the conical segment at different distances from the axis of rotation.

This conical arrangement ensures the centering of the drill bit during rotation. This arrangement has no counterpart in BRANDENBERG et al. (just as it had no counterpart in PHIPPS).

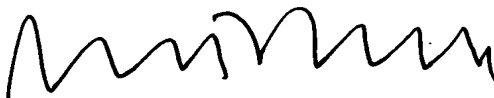
As the claims in the case bring out these distinctions with ample particularity, it is believed that they are all

patentable, and reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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